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- (74) Agents: **DONALD, Heather, June** et al.; Spoor & Fisher, Po Box 41312, Graighall, 2146 Morningside (ZA).
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- (71) Applicant (*for all designated States except US*): **ELEMENT SIX LIMITED** [IE/IE]; Shannon Airport, County Clare (IE).
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- (71) Applicant and
- (72) Inventor (*for MW only*): **DONALD, Heather, June** [ZA/ZA]; Spoor & Fisher, P. O. Box 41312, Craighall, 2146 Morningside (ZA).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **EGAN, David, Patrick** [IE/IE]; Berra, Kilkishen, County Clare (IE). **ENGELS, Johannes, Alexander** [ZA/IE]; Clonbunny, Newport, County Tipperary (IE). **FISH, Michael, Lester** [GB/IE]; Solas, Ballaghboy, Ennis, County Clare (IE).
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(54) Title: COATED ABRASIVES

(57) Abstract: A coated super-hard abrasive comprises a core of super-hard abrasive material, typically diamond or cBN based, an inner layer of a metal carbide, nitride, boride, carbonitride or boronitride chemically bonded to an outer surface of the super-hard abrasive material and an outer layer of a metal, metal alloy or a combination of metals or metal alloys deposited on the inner layer. Examples of metals or metal alloys that can be applied as an outer layer include metals from group IVa, Va or VIa transition metals, including tungsten, titanium, chromium, molybdenum, and zirconium, and metals from the first row transition metals (Ti to Cu), particularly the non magnetic metals or alloys of these that are amenable to magnetron sputtering, and elements from groups IIb and IVb of the periodic table, such as B, Al, Si.



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